

Remarks

Claims 15-22 inclusive and 24 remain. Claims 1-14 inclusive and 23 have been canceled.

All claims 1-24 have been rejected under Section 102(b) as being anticipated by US 5,910,614 (Turri et al.) or US 5,292,585 (Ohnuki et al.).

All claims 1-24 have also been rejected under Section 103(c) over Turri in view of Ohnuki and the cited publication by Curran (Angew. Chem. Int. Ed. 1998, 37, 1174-96).

Applicant's remaining independent claim 15 is essentially original claim 15 amended to include the feature of claim 23. It is directed to a liquid/liquid extraction method for separating a PFPE with di-hydroxyl end groups from a mixture of PFPEs with hydroxyl and di-hydroxyl end groups, each with a distribution of molecular weights, using an alcohol solvent and a fluorinated solvent. The method includes isolating the lower-molecular-weight PFPE with di-hydroxyl end groups in the alcohol solvent by evaporating the alcohol solvent after mixing the PFPE mixture with both solvents. This is shown in the middle column of Tables 1 and 2 as the "End Group Ratio" for the "Methanol Soluble Z-Tetraol".

Neither of the cited patents teaches or suggests Applicant's method. Ohnuki, which was cited and distinguished in Applicant's specification (page 2, lines 21-24), relates to purifying a PFPE via extraction of significantly non-fluorinated contaminants using organic esters. It does not relate to *separating different PFPEs with different endgroups* and does not teach use of a fluorinated solvent, either for separation or purification. The "fluorinated solvent" mentioned in the portions of Ohnuki cited in the Office Action is for dissolving the PFPE lubricant, *after it has been purified by the Ohnuki process*, so that the solution can then be applied to the disk. This is the well-known prior art method of applying the PFPE lubricant to the disk, as also stated in Applicant's specification (page 1, lines 18-20). Thus Applicant's believe that Ohnuki is clearly not a Section 102(b) reference. Additionally, because Ohnuki does not teach that for which it is asserted, it can not be relied upon as a secondary reference under Section 103(c).

Turri teaches only *purifying a PFPE having hydroxyl end groups*, e.g., Fomblin® Z-DOL, namely extracting *functional* Z-DOL from a mixture that includes Z-DOL and PFPEs having *non-functional* end groups (Turri at column 1, lines 21-24). Applicant's method separates *two different PFPEs, each with a functional end group*, i.e., a PFPE with a di-hydroxyl end group, like Z-Tetraol, from a PFPE with a hydroxyl end group, like Z-DOL. Because Turri does not teach separating PFPEs with different functional end groups, it can not be cited as a Section 102(b) reference. Additionally, for this same reason it can not serve as a primary Section 103(c) reference. There is nothing in Turri or Curran, alone or in combination, that would suggest how to isolate lower-molecular-weight PFPE with a *functional di-hydroxyl end group* from a PFPE with a *functional hydroxyl end group*, as claimed in Applicant's amended claim 15. Further, Turri requires an initial step of using a silica gel. The silica gel contains active sites that establish bonds with the hydroxyl end groups of the Z-DOL (Turri at column 3, lines 47-58). There is no teaching in Turri what the effect of the silica gel would be on PFPEs with di-hydroxyl end groups. Since there is a likelihood that it may not be possible to remove the PFPEs with di-hydroxyl end groups from the silica, one skilled in the art would not be motivated to use the Turri *purification* method to separate two different PFPEs with different functional end groups.

In view of the above amendments and comments Applicant believes all remaining claims are in condition for allowance. The Examiner is invited to call Applicant's attorney if a telephone conference will expedite the prosecution of this application.

Respectfully submitted,

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